

WHAT IS CLAIMED IS

- 1 1. A method for delivering treatment fields, comprising:  
2 identifying a sequence group;  
3 determining a type of radiation to be applied in a first field of said  
4 sequence group, said type of radiation selected from primary photon  
5 radiation and primary electron radiation;  
6 configuring, based at least in part on said type of radiation, a  
7 radiation therapy treatment device to deliver said first field; and  
8 delivering said first field.
- 1 2. The method of claim 1, wherein said sequence group includes  
2 instructions defining a plurality of fields.
- 1 3. The method of claim 2, wherein at least one of said plurality of fields  
2 is a photon field and at least one of said plurality of fields is an electron  
3 field.
- 1 4. The method of claim 1, further comprising identifying, based at least  
2 in part on said type of radiation, at least one interlock library, and wherein  
3 said configuring further includes configuring said radiation therapy device  
4 based at least in part on said at least one interlock library.
- 1 5. The method of claim 1, wherein said configuring includes:  
2 positioning elements of a photon collimator; and  
3 positioning elements of an electron collimator.
- 1 6. The method of claim 1, wherein said type of radiation is primary  
2 photon radiation, and wherein said configuring further comprises:

3 partially retracting elements of an electron collimator, and  
4 positioning elements of a photon collimator to define said field.

1 7. The method of claim 1, wherein said type of radiation of primary  
2 electron radiation, and wherein said configuring further comprises:  
3 partially retracting elements of a photon collimator, and positioning  
4 elements of said electron collimator to define said field.

1 8. The method of claim 1, further comprising:  
2 determining whether said sequence group includes a second field;  
3 determining a type of radiation to be applied in said second field of  
4 said sequence group, said type of radiation selected from primary photon  
5 radiation and primary electron radiation;  
6 configuring, based at least in part on said type of radiation, said  
7 radiation therapy treatment device to deliver said second field; and  
8 delivering said second field.

1 9. The method of claim 8, wherein said second field and said first field  
2 are different types.

1 10. The method of claim 1, further comprising:  
2 selecting between a clinical mode and a quality assurance mode;  
3 and  
4 storing data regarding said treatment sequence in a patient chart if  
5 said clinical mode is selected.

1 11. The method of claim 10, further comprising:  
2 storing data regarding said treatment sequence in a quality  
3 assurance chart if said quality assurance mode is selected.

1 12. A method for automating the delivery of a plurality of treatment  
2 fields, comprising:

3 identifying a sequence group defining said plurality of treatment  
4 fields;  
5 determining a type of radiation to be applied in a first of said  
6 treatment fields, said type of radiation selected from primary photon  
7 radiation and primary electron radiation;  
8 configuring, based at least in part on said type of radiation, a  
9 radiation therapy treatment device to deliver said treatment field; and  
10 delivering said treatment field; and  
11 repeating said determining, configuring and delivering until each of  
12 said plurality of treatment fields of said sequence group have been  
13 delivered.

1 13. A radiation therapy device, comprising:  
2 a beam source, selectively operated to generate a beam having a  
3 beam type selected from a primary photon beam and a primary electron  
4 beam;  
5 a beam shaping device, selectively operated to shape said beam;  
6 and  
7 a control system coupled to said beam source and said beam  
8 shaping device and operable to  
9 identify a treatment sequence group having a plurality of  
10 fields;  
11 identify a required beam type of each field of said treatment  
12 sequence group; and  
13 operate said beam shaping device to shape said beam to  
14 deliver each of said fields.

1 14. The device of claim 13, wherein said beam shaping device includes  
2 an electron collimator and a photon collimator.

1 15. The device of claim 13, wherein said control system is further  
2 operable to capture treatment data during delivery of each of said fields.

1 16. The device of claim 13, wherein said control system is selectively  
2 configured in one of a clinical mode and a test mode.

1 17. An apparatus for delivering treatment fields, comprising:  
2 means for identifying a sequence group;  
3 means for determining a type of radiation to be applied in a first field  
4 of said sequence group, said type of radiation selected from primary  
5 photon radiation and primary electron radiation;  
6 means for configuring, based at least in part on said type of  
7 radiation, a radiation therapy treatment device to deliver said first field; and  
8 means for delivering said first field.

1 18. The apparatus of claim 17, wherein said means for configuring  
2 comprise a photon collimator and an electron collimator.

1 19. A method for testing delivery of radiation fields, comprising:  
2 identifying a sequence group to be tested;  
3 identifying an instruction of said sequence group, said instruction  
4 defining at least a type of radiation to be applied and a configuration of  
5 components of a radiation therapy device;  
6 preventing a beam source of said radiation therapy device from  
7 generating said radiation;  
8 configuring components of said radiation therapy device as defined  
9 by said instruction; and  
10 repeating said identifying an instruction, said preventing, and said  
11 configuring for each instruction of said sequence group.